



10CV63

Sixth Semester B.E. Degree Examination, July/August 2021
Transportation Engineering - II

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. Define the term "Permanent Way". Draw a neat sketch of cross section of railway track on single line. Mention the various requirements of Permanent way. (10 Marks)
b. Define the term "Creep". With neat sketch, explain how creep is measured. (10 Marks)
- 2 a. Mention different types of Sleepers used. What are the good requirement of ideal sleeper? (06 Marks)
b. Mention the various functions of a Ballast Material. (04 Marks)
c. Calculate the various materials required for laying a broad gauge track. (10 Marks)
- 3 a. Mention different types of Gradients. Explain any two of them. (10 Marks)
b. Write short notes on :
i) Grade Compensation on curves ii) Cant deficiency. (10 Marks)
- 4 a. With neat sketch, explain the working principle of "Semaphore Signal". (10 Marks)
b. In a layout of a B.G track, a 8° branch line diverges from a 5° main curve. If the speed of train on branch line is 45 kmph, what is restricted speed on main curve? (10 Marks)
- 5 a. Mention various factors considered for site selection for Airport. (10 Marks)
b. Explain the various corrections to be applied for basic length of runway. (10 Marks)
- 6 a. Explain the various geometrics of taxiway. (10 Marks)
b. Write short notes on :
i) Basic length of runway ii) Airport marking. (10 Marks)
- 7 a. With neat sketch, explain Needle – Beam method of tunneling in soft soils. (10 Marks)
b. Define the term "Mucking". Explain the process of mucking in sloping grand with the help of neat sketch. (10 Marks)
- 8 a. Define the term "Harbor". Mention the various factors to be considered in selection of site for harbour. (10 Marks)
b. Differentiate between :
i) Wharf and Quays ii) Ware house and Transit shed. (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. $42+8=50$, will be treated as malpractice.